



Hogan Lovells US LLP
Columbia Square
555 Thirteenth Street, NW
Washington, DC 20004
T +1 202 637 5600
F +1 202 637 5910
www.hoganlovells.com

July 19, 2012

VIA ELECTRONIC DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Room TWA325
Washington, DC 20554

**Re: Notice of *Ex Parte* Presentations
WT Docket No. 12-69**

Dear Ms. Dortch:

On July 17, 2012, Vulcan Wireless LLC (“Vulcan”) representatives Scott Wills, Paul Nagle, Paul Kolodzy, Michele Farquhar, and Christopher Termini met with the following FCC personnel:

1. Louis Peraertz, Legal Advisor to Commissioner Mignon Clyburn;
2. Ruth Milkman, Chief of the FCC’s Wireless Telecommunications Bureau (“WTB”); James Schlichting, Senior Deputy Bureau Chief of the WTB; Tom Peters, Chief Engineer of the WTB; Nese Guendelsberger, Chief of the Spectrum Competition and Policy Division (“SCPD”) of the WTB; Nicole McGinnis, Assistant Chief of the SCPD; Maria Kirby, Legal Advisor to the WTB; and Melissa Tye, Legal Advisor to the WTB;
3. Paul Murray, Acting Legal Advisor for Wireless Issues to Commissioner Jessica Rosenworcel; and
4. Courtney Reinhard, Legal Advisor to Commissioner Ajit Pai.

During the meetings, the Vulcan representatives discussed the need for prompt Commission action to restore interoperability in the Lower 700 MHz band, as reflected in the attached slides provided to the Commission staff during the meetings, and in Vulcan’s reply comments filed on July 17, 2012, in WT Docket Docket No. 12-69. Vulcan reiterated that the only reliable technical evidence in the record—based on empirical field and lab measurements of actual network and device performance—conclusively demonstrates that interoperability in the Lower 700 MHz band will not adversely impact Lower B and C Block device reception.

The Vulcan representatives further explained that the Commission need not determine the *means* by which the industry will restore interoperability in the Lower 700 MHz band, and is not required to prescribe or mandate any technical specifications in this proceeding. Rather, the Commission can adopt an order finding that interoperability in the Lower 700 MHz band is required because it would serve the public interest, and establish a reasonable time frame (*i.e.*, 6 months) during which industry participants can collectively determine how to implement interoperability through the industry-driven standards process. During this six-month period, parties can evaluate the merits of various solutions, such as expanding Band Class 17 to add the A Block, modifying Band Class 12, modifying Band Class 17, or other options. The Commission can also monitor the standards body process, as it is currently

does, to ensure industry participants are cooperating fully and fairly to effect the Commission's interoperability requirement. As the Vulcan representatives explained, such an approach would provide the necessary incentive for licensees and equipment manufacturers to collaborate in deciding the most effective and efficient manner of achieving interoperability.

Vulcan further proposed that, if an industry-wide consensus for implementation is not presented to the Commission by or before the end of the 6-month period, the Commission should adopt Band Class 12 as the *de facto* fallback standard for the Lower 700 MHz band. The majority of commenters agree that substituting Band Class 12 for Band Class 17 would be the most effective means of achieving Lower 700 MHz interoperability, with minimal cost to licensees, vendors, and consumers. As reflected in the record, opponents have been steadfast in their unwillingness to work towards an industry-based decision to restore interoperability, objecting to the solutions that have been proposed without factual support, while offering no other alternatives. By adopting the approach proposed by Vulcan, the Commission can incentivize and promote constructive industry collaboration.

Pursuant to Section 1.1206(b) of the Commission's rules, I am filing this notice electronically in the above-referenced dockets. Please contact me directly with any questions.

Respectfully submitted,

/s/ Christopher J. Termini

Christopher J. Termini
Counsel to Vulcan Wireless LLC

Associate
christopher.termini@hoganlovells.com
D 1+ 202 637 5437

cc: Paul Murray
Louis Peraertz
Courtney Reinhard
Ruth Milkman
James Schlichting
Tom Peters
Nese Guendelsberger
Nicole McGinnis
Maria Kirby
Melissa Tye

Restoring Interoperability in the Lower 700 MHz Band

July 17, 2012

Activity Timeline for Lower 700 MHz Band Class Pre- and Post- Auction 73

Dec 2007 (prior to auction) Only Band Class 12 was under consideration by 3GPP

March 2008 Auction closes

May 2008 Motorola submits paper to 3GPP proposing Band Class 17 – only covers B and C Blocks

June 2008 Ericsson questions reason for fracturing the band into separate band classes; Ericsson removes objections after AT&T supports Band Class 17

September 2008 3GPP ratifies Band Class 17 and Band Class 13 (Verizon's Upper C Block)

September 2009 A Block licensees petition FCC for device interoperability

December 2010 3GPP ratifies Band Class 12 with 1 MHz guard band

2011 (ongoing) VZ deploys 4G LTE covering more than 175 cities and more than 186 million Americans

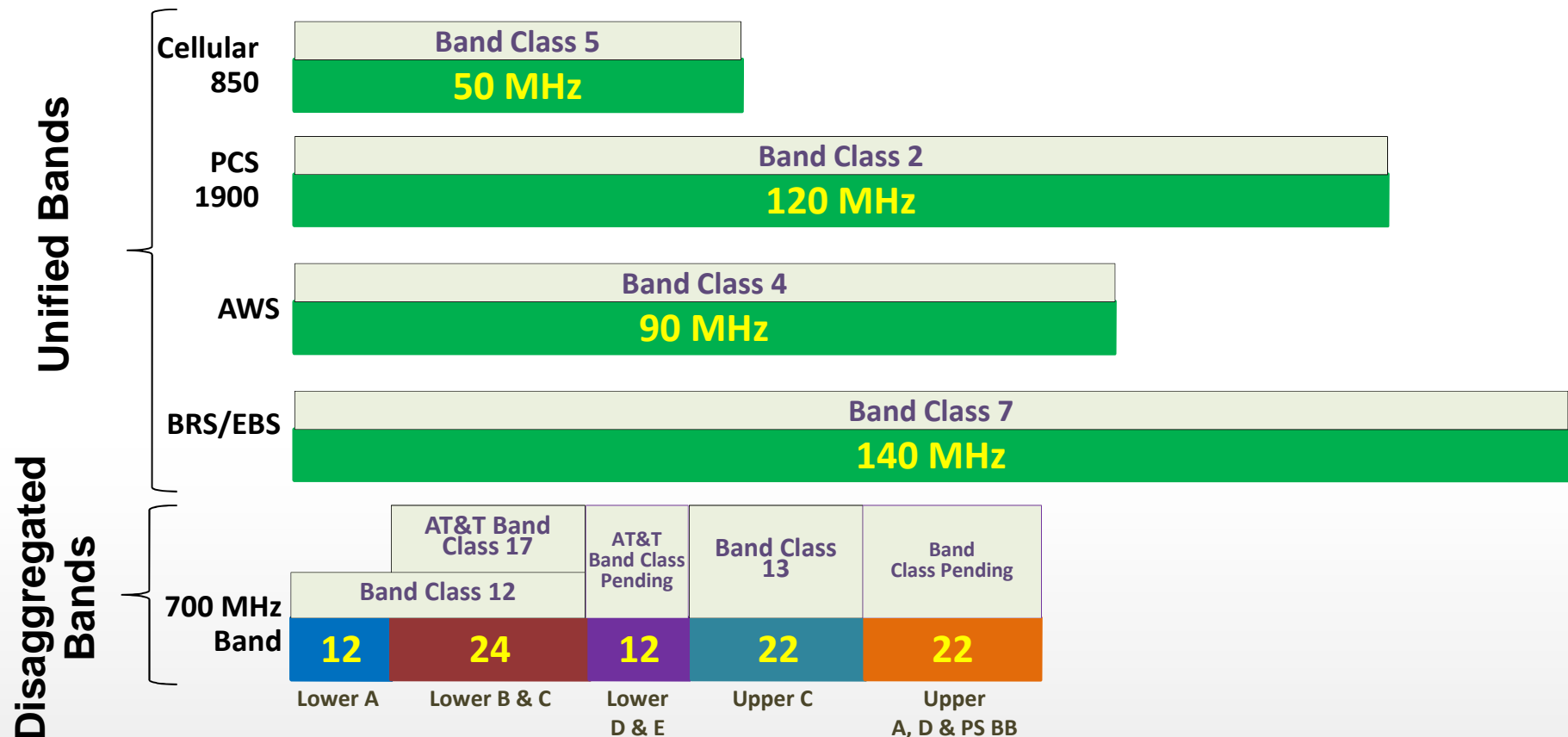
2011 (ongoing) AT&T launches 4G LTE in 15 cities and to reach 70 million Americans by the end of 2011

2011 (ongoing) Band Class 12 licensees still await access to competitive handset ecosystem

November 2011 Ericsson requests that an additional 1 MHz of guard band be provided by Band Class 12 to protect spectrum being acquired from Qualcomm; ATT speaks at 3GPP in favor of request

December 2011 FCC grants approval to AT&T acquisition of Qualcomm D and E Block licensees without conditions addressing interoperability

March 2012 FCC adopts Interoperability NPRM



- **With 700 MHz, the 3GPP process has been unduly influenced to force disaggregation**
- The unique use of 700 MHz frequencies exclusively in the US has given AT&T (a dominant 700 MHz spectrum holders) excessive influence, as there are no large international carriers using the same spectrum. This has led to unprecedented band class fragmentation and delays, slower ecosystem development and less consumer choice.

The Commission Should Act Promptly to Restore Interoperability in the Lower 700 MHz Band

- **Clear Technical Support.** The only reliable technical evidence before the Commission demonstrates that Lower 700 MHz interoperability will not adversely impact Lower B and C Block device reception. Opponents of interoperability have consistently failed to provide any measurements or empirical data to the contrary.
- **Significant Public Interest Benefits.** There is widespread agreement that restoring interoperability would empower consumers by removing artificial device- and network- related limitations, promote competition, stimulate innovation, facilitate nationwide roaming, and enhance spectrum efficiency.
- **Industry-Based Solution for Implementation.** The Commission need not establish the means for implementing Lower 700 MHz interoperability, but can facilitate a measured industry solution to effect the transition.
- **Legal Authority.** The Commission has clear legal authority to adopt an interoperability solution under these circumstances, which constitute a “worst-case” scenario for which regulatory action is necessary.

The Commission Can Incentivize and Facilitate Necessary Industry Cooperation

- Various parties have shown no desire to cooperatively work to achieve an industry solution.
- There are inadequate marketplace incentives to induce Lower 700 MHz interoperability.
- Opponents of interoperability have offered sparse factual support yet remain firmly entrenched in their convictions.

A Cooperative Solution to Achieve Interoperability

Role of the Commission

- The Commission can incentivize and facilitate necessary industry cooperation
 - The Commission need not decide how to implement interoperability
 - The Commission need not prescribe any technical specifications or standards mandate
 - The Commission can simply require interoperability and set a reasonable timeframe to achieve it
 - Establish a framework to enable industry participants to collectively determine how to best achieve interoperability in the Lower 700 MHz band through the standards process

A Cooperative Solution to Achieve Interoperability

Role of Licensees and Vendor Community

- Work collaboratively and collectively to adopt a Lower 700 MHz interoperability standard
- Use the existing industry standards body process
- Explore and evaluate multiple interoperability options which may include:
 - Adopting the current 3GPP Band 12 standard
 - Adding the A Block to the Band 17 standard
 - Adopting a modification to the Band 12 standard
 - Adopting an alternative modification to the Band 17 standard

The FCC Need Not Determine the Means to Restore Interoperability

To resolve this proceeding, the Commission can and should:

- Require Interoperability: Issue an order requiring that interoperability occur in the Lower 700 MHz band, consistent with all other commercial mobile bands.
- Set a Timeline for Industry-Based Implementation: Designate a 6-month period, during which licensees and vendors can collaborate in the industry 3GPP process to determine the most appropriate means of effecting interoperability.
- Monitor for the Industry Solution: Monitor the 3GPP process to ensure full and fair industry cooperation in achieving the Commission's interoperability requirement.
- After Six Months, Interoperability Will Be Achieved Either by an Industry-Based Solution or Band Class 12: If an industry-wide consensus is not resolved and presented to the FCC within this 6-month timeframe, adopt Band Class 12 as the *de facto* fallback standard for the Lower 700 MHz band.

Restoring Interoperability Can Be Achieved Promptly, With Minimal Cost

Timeframe for Implementing Interoperability	Milestone
By month 6	<i>Industry Collaboration to Determine Means of Implementation and Standards Ratification for Interoperability</i> – Six-month period during which 3GPP and industry participants collaborate to determine the most appropriate and efficient means of achieving interoperability across the Lower 700 MHz band. The Commission may monitor the 3GPP process to ensure that interested parties cooperate fairly and in accordance with the Commission’s order that interoperability must occur in the Lower 700 MHz band.
By month 12	<i>Base Station Transition</i> – All carriers upgrade their base stations (software-based upgrade) to support interoperability across the entire Lower 700 MHz band. Carriers routinely upgrade software on the base stations via remote processes without impacting customer service.
By month 15	<i>Interim Device Transition</i> – Any carrier that offers service on any paired spectrum block within the Lower 700 MHz band will offer at least one mobile device that is capable of operating across all paired spectrum blocks in the Lower 700 MHz band.
By month 18 (industry regularly introduce new devices on less than 18 month timeframes)	<i>Full Transition</i> – Each device that is capable of operating in any paired spectrum block within the Lower 700 MHz band, which the carrier offers to any person or entity in any market, is capable of operating across all paired spectrum blocks in the Lower 700 MHz band. An industry solution should not result in meaningful increased size or cost compared with currently available devices.

Restoring Interoperability Will Result in Enormous Public Interest Benefits

There is widespread agreement that restoring Lower 700 MHz interoperability would empower consumers, promote competition, spur innovation, facilitate nationwide roaming, enhance spectrum efficiency, and stimulate the economy.

- Restoring interoperability would **empower consumers** by:
 - Removing artificial barriers that prevent consumers from using their wireless devices across multiple networks in the Lower 700 MHz band;
 - Spurring innovation in technology and enabling a wider range of devices;
 - Substantially reducing the switching costs for consumers that rely on service in the Lower 700 MHz band, thereby offering consumers additional choices for service, device, and rates; and
 - Facilitating nationwide roaming agreements, and preventing incumbent carriers from skirting the FCC's voice and data roaming rules.